

REMARKS

Claim 1 has been amended to specify that the mold is irradiated with a laser "having a wavelength of 600 nm or shorter." This amendment is supported on page 5, line 17, of the specification. No new matter has been added.

As requested by the Examiner, attached is a new declaration signed by all of the inventors. The new oath correctly identifies the residence of each inventor.

The Examiner has objected to the drawing for being labeled Fig. 1. A corrected drawing accompanies this amendment. The corrected drawing removes the label "Fig. 1" from the drawing. The specification has been amended to correctly refer to the Figure.

Claims 1, 2 and 5-8 stand rejected under 35 USC 103(a) as being unpatentable over Boeke in view of Hirsch. This rejection is respectfully traversed. Claim 1 claims a pretreatment method for electroless plating. The claimed method has been amended to include irradiating a polymeric mold with a laser having a wavelength of 600 nm or shorter. Instead of producing a thermal change in the mold material, as described in Boeke, the visible-light or ultraviolet light laser causes an optical-chemical change in the mold material. This change causes ablation of the mold material resulting in charged debris on the surface of the mold. See page 3, line 25- page 4, line 4. The charged debris allows the metal plating to securely adhere to the surface of the mold.

Boeke only discloses using an infrared laser such as YAG pulsed laser or a CO₂ laser (See Boeke Example col. 6, ll. 46-55). Infrared lasers such as the one's disclosed in Boeke produce light with a wavelength greater than the claimed 600 nm. The lasers in Boeke modify the surface of the irradiated material by producing a local heat effect instead of the optical-chemical change accomplished by the laser claimed by applicants. Since neither Boeke nor Hirsch disclose irradiating a mold with a laser having a wavelength of 600 nm or shorter, as claimed, this rejection of claim 1 should be withdrawn. The rejection of claims 2 and 5-8, which depend from claim 1, should be withdrawn for at least the same reasons.

Claims 1-8 stand rejected under 35 USC 103(a) as being unpatentable over Hiraoka in view of Hirsch and Boeke. This rejection is respectfully traversed. Hiraoka describes a method of modifying the surface of a fluorinated resin by irradiating the resin with a laser beam through a basic solution. The reaction described in Hiraoka is a physical reaction involving the fluorine containing resin. Conversely, the present invention relates to an optical-chemical reaction. The difference in reaction types is relevant because the addition of the claimed inorganic fillers generates charged debris only in the irradiated region. When the mold is then immersed in a noble metal aqueous solution, noble metal can be attached only to the laser irradiated region (see the specification, page, 4, lines 1-4).

Hiraoke, which describes a different reaction type, does not describe adding an inorganic filler (see office action page 5, lines 9-15). However, it is the Examiner's contention that adding inorganic filler would be obvious in view of Boeke. Since Hiraoke does not utilize the same reaction mechanism as applicants', there would be no motivation to add an inorganic filler to resin disclosed in Hiraoke to generate charged debris in a localized area. Absent the localization of the charged debris, as described by applicants, there would be no motivation to utilize the inorganic filler in the molded article described in Hiraoke.

Since the cited reference does not disclose irradiating a polymeric mold containing an inorganic filler with a laser having a wavelength of 600nm or less, as claimed by applicants, claim 1 should be allowed. Claims 2-8, which depend from claim 1, should be allowed for at least the same reasons.

Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952**, referencing docket no. 204552022500.

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Respectfully submitted,

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